MIT's Oldest and Largest Newspaper

tech.mit.edu

Volume 132, Number 44



WEATHER, p. 2

FRI: 55°F | 44°F Partly sunny.

SAT: 54°F | 33°F Sunny

SUN: 64°F | 44°F Mostly cloudy.

Friday, October 12, 2012

Endowment at \$10 bil

MIT's percent returns outperform peers'

By Leon Lin STAFF REPORTER

In the past few months, several of the richest universities in the U.S. have announced their endowment performances for the 12 months ending on June 30. MIT's endowment grew to \$10.1 billion, the highest value achieved in its history. MIT's primary investment pool, produced a return of 8 percent, topping returns at other schools, including Harvard, Yale, Princeton, and Stanford, the four private

INTERACTIVE



Take a closer look at how MIT's endowment stacks up with those of other universities http://bit.ly/MITendowment2012

universities with deeper pockets than MIT.

However, all of these schools reported poorer returns on investments in fiscal year (FY) 2012 than in the previous year. MIT posted a 17.9 percent return in FY 2011.

Increases in university endowments reflect gains from investments as well as contributions from donors, which accounted for 14.3 percent of the increase in MIT's endowment in FY 2012. These increases are offset by spending towards each university's operations. The portion of the endowment transferred to the operating budget is typically about 5 percent.

Stanford also reported the highest endowment in its history, surpassing prerecession values for the first time. Though Stanford only had an investment return of 1 percent for the year, donations boosted their endowment to \$19.7 billion, overtaking Yale's \$19.3 billion.

Harvard's investments produced a return of -0.05 percent which, after contributions and spending appropriations, resulted in Harvard's endowment dropping from \$31.7 billion to \$30.7 billion, down from the school's 2008 peak of \$36.6

However, Harvard's endowment is still the largest among universities, with Yale's at a distant second. As with Harvard, the value of Yale's endowment fell slightly in FY 2012 and awaits a full recovery from the

Endowment, Page 18

Two dead bodies found in the Charles

Two dead bodies were found in the Charles River this week. On Monday, the unidentified body of a 62-year-old man was found near the Boston University Boathouse. On Tuesday, police identified through dental records the body of 23-year-old Jonathan Dailey, a second-year graduate student at Boston Architectural College. He was discovered at the bottom of the river, chained to a cinder block. Dailey had been missing since Oct. 2 and was taking a semester off from gradu-

Authorities have said they do not think there is foul play involved in the death of the 62-yearold man. Investigation into Dailey's case is ongoing.

Jake Wark, spokesman for District Attorney Daniel F. Conley, said in a statement to The Boston Globe, "The facts and circumstances surrounding Mr. Dailey's death remain under investigation by State Police detectives assigned to the Suffolk DA's office." He added that the Office of the Chief Medical Examiner has not yet determined the cause or the manner of Dailey's death.

–Deborah Chen



Posters of missing Boston Architectural College graduate student Jonathan Dailey were put up in the Infinite Corridor. Dailey was found dead in the Charles River on Tuesday.

MIT Professor Emeritus Walter Lewin, famous for his astrophysics research as well as for his undergraduate physics lectures, retuned to the lecture hall on Thursday to deliver a public talk on the history of X-ray astronomy. He detailed major scientific breakthroughs from 1962 through 1972 that led to the discovery of X-ray-emitting objects throughout the galaxy. The lecture was part of "An Astronomical Event," a daylong symposium presented by the MIT Department of Physics and the Kavli Institute for Astrophysics & Space Research.

REPORTER'S NOTEBOOK

Higgs Boson, explained

MIT physics profs try to clarify discovery

By Janelle Mansfield

ASSOCIATE NEWS EDITOR

Last spring, news of the discovery of proof of the Higgs Boson particle swept MIT's campus, prompting discussion in classrooms, on social networks and email lists, and in casual conversations among students. During this news blitz, the recurring question on my mind was, what exactly is the Higgs Boson? Since I have no theoretical physics knowledge, I didn't understand the significance of it at all.

Feeling out of the loop on this piece of dy knowledge, I couldn't pass chance to hear four MIT professors explain what the mysterious particle is and why it is

so exciting. So, on Thursday night I made my way to 26-100 to hear several MIT professors speak about it. The lecture hall was packed; attendance was higher than most of my 7.012

Professor Edward H. Farhi of the theoretical physics department took the floor first. He outlined the importance of the evidence found this spring, calling it "a great coming together of theory and experiment" and "the most complicated experiment that has ever been built." After building up some suspense in the audience, he introduced Assistant Professor Jesse Thaler to give an overview of the physical theory of the Higgs Boson

Higgs Boson, Page 16

IN SHORT

Family weekend starts today. Welcome parents! Check out the full schedule of events at http://parents.mit.edu.

Quarter 2 PE registration is now open! Go to http://mitpe.com/ to sign up for a class. The deadline is Oct. 17 at 1 p.m.

The Student Center will soon require MIT IDs for access from 1 a.m. to 6 a.m.

every night. Look out for the changes this

The U.S. Supreme Court heard Fisher v. University of Texas yesterday. The case concerns the role of affirmative action in college admissions; in August, MIT filed an amicus brief supporting the use of race as a factor in a holistic admissions process.

Send news information and tips to news@tech.mit.edu.

THE LAST 25 DAYS: THE POSSIBILITIES

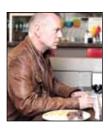
A look at battleground states: how close could the election be? OPINION, p. 5

A LETTER ON EDX LEADERSHIP

President Reif responds to The Tech's editorial from last week. OPINION, p. 4

ARTFUL MUSICAL INSTRUMENTS

Queen of Spain's pianoforte and other instruments at the MFA. ARTS, p. 12



WHAT IS THIS TIME TRAVEL NONSENSE?

Looper won't close that loop for you, but it's an entertaining drama anyway. ARTS, p. 11

NFL PREDICTIONS: WEEK 6

Do your bets for this week agree with The Tech's?

SPORTS, p. 19

SECTIONS World & Nation

Cutoff of US money leads UNESCO to slash programs

PARIS — A year after the United States cut off its financing to UNESCO, following a vote to make Palestine a full member, the organization remains engaged in a frantic effort to cut back programs, reduce costs and raise emergency money.

UNESCO's director-general, Irina Bokova, has secured pledges of about \$70 million since December to try to make up for the roughly \$144 million in dues that the U.S. has withheld, she said in an interview. Major contributors have included Saudi Arabia, with \$20 million, and Norway, with \$20 million over two years for crucial programs.

"But there is still an enormous shortfall," Bokova said, calling the loss of U.S. financing "a big blow to the organization" that was also costing the United States.

"The suspension has diminished the possibility of the United States to be involved together with UNESCO," the United Nations Educational, Scientific and Cultural Organization, she said, limiting its ability "to outreach to the Muslim world, to talk of democracy building in Arab countries" and to promote programs for gender equality, freedom of expression and the protection of journalists.

—Steven Erlanger, The New York Times

In talks, Japan and South Korea vow economic cooperation

TOKYO — The finance ministers of Japan and South Korea declared on Thursday that their nations would closely cooperate on economic and financial issues, in talks aimed at limiting the political damage from a diplomatic clash over contested

The talks took place during annual meetings in Tokyo of the International Monetary Fund and the World Bank that were supposed to focus largely on the debt crisis in Europe. Instead, they have been at least partly overshadowed by concerns that the rekindling of territorial disputes in eastern and southeastern Asia could hurt the region's vital role as a source of growth for the global economy.

On Thursday, the head of the IMF, Christine Lagarde, told participants that fixing Europe's debt problems and averting drastic fiscal cuts in the United States were needed to lift global economic confidence. That lack of confidence is "having a ripple effect on emerging markets, and in particular in Asia,"

-Martin Fackler, The New York Times

Indonesia seeing increase of small terrorist groups

JAKARTA, Indonesia — Ansyaad Mbai, the director of the National Counterterrorism Agency here, has a genealogy of terrorism spread across his office wall. It starts in 1949, the year Dutch colonizers acknowledged Indonesia's independence, and extends to 2011. Like a family tree, it begins with one line and gradually branches out into an increasingly complex web with names and photographs of the country's most notorious

"It's like a database, the framework to coordinate intelligence," he said.

But lately the database has expanded beyond the boundaries of the chart, as smaller, more local groups with different objectives than those of their al-Qaida-affiliated predecessors drive the terrorist threat.

In the 10 years since Islamic militants blew up two nightclubs on the resort island of Bali, killing 202 people, Indonesian security forces have arrested more than 700 people on suspicion of being militants and killed about 60. All the major suspects in the Bali attacks on Oct. 12, 2002, have been killed or imprisoned.

-Sara Schonhardt, The New York Times

A legal brawl in Mexico as bond buyers look on

By Azam Ahmed THE NEW YORK TIMES

Trouble is brewing in the industrial heartland of Mexico, but it's not the violent drug wars that have plagued the boomtown of Monterrey. It is a legal brawl over the bankruptcy of the country's largest glassmaker, Vitro.

Hedge funds and others who own the company's bonds have accused Vitro of conspiring to bilk them out of hundreds of millions of dollars by exploiting legal loopholes.

Vitro, meanwhile, says its actions were perfectly legal under the Mexican system, and accuses the hedge funds of trying to impose U.S. laws on a foreign court.

The cross-border battle touches the foundations of international investing and law, some academics and investors say. The dispute also raises questions for global investors navigating legal systems in emerging countries that may be different from those found in the industrial

Vitro creditors say that if Vitro's bankruptcy plan were to be upheld, other Mexican companies could have trouble raising money in the United States

When a company files for bankruptcy in the United States, the absolute priority rule prevails. The rule establishes an order as to who is paid first when a company is in bankruptcy; senior bondholders get the most and shareholders are often wiped out.

In the Vitro case, the opposite seems to have happened. The shareholders, including the Sada family, which has owned the company for more than 100 years, maintained control of the glassmaker. The bondholders, meanwhile, received 40 to 60 cents for every dollar of debt they owned under the company's bankruptcy plan, according to some estimates.

The case has sent ripples through the Mexican debt market. Creditors are leery of other companies' pulling a similar move. Cemex, a major Mexican cement maker, recently had to place a clause into bond documents promising not to do what Vitro did. Market participants have taken to calling this attitude the "Vi-

The company and its lawyers dismiss the notion of a Vitro effect. They say that Mexican law has always had the loophole, which allows a company to use loans to its subsidiaries to generate votes to approve a bankruptcy plan.

Nothing is different, they say, except for the obstinacy of the parties on the other side of the table: Elliott Management and Aurelius Capital Management.

"If you're a sophisticated party that chooses to go and institute litigation in Mexico, you can hardly claim the benefits of U.S. law, and particularly the benefits of U.S. policy, to protect you from the decision that comes out of that court," said Andrew M. LeBlanc, a lawyer for Vitro, in arguments before a federal judge in Dallas.

Despite the uproar among Vitro's creditors, both Elliott and Aurelius continued to buy the bonds even after the company issued a news release detailing a number of the actions that the hedge funds are now questioning, people briefed on the matter say.

Toyota recalls 7.4 million cars because of a fire risk

By Christopher Jensen

THE NEW YORK TIMES

Toyota announced on Wednesday that it was recalling 7.4 million vehicles worldwide, including 2.5 million in the United States, to repair power-window switches that can break down and pose a fire risk.

The recall, the company's largest for a single part, could set back its efforts to recover from previous safety issues and the earthquake and tsunami in Japan last year.

The vehicles affected in the U.S. include just more than one million Camrys. Eight months ago, the National Highway Traffic Safety Administration opened an investigation into reports of smoke and fire coming from driver's side doors. During its investigation, the safety agency collected reports of 161 fires, including 129 from the automaker, and of nine injuries of undefined

Toyota said it had traced the fire hazard to the master switch for controlling the power windows in the driver's door. Some of those switches may have a "notchy" or "sticky" feeling because the switch supplier did not evenly apply grease.

The automaker said if "commercially available lubricants" were used to fix the problem, the switch could melt "and lead to a fire under some circumstances."

In its news release, Toyota said there were no crashes related to the recall, but did not mention fires or injuries.

The recalled models in the U.S. are the 2007 to 2009 Camry, Camry Hybrid, Tundra pickup and RAV4; the 2007 and 2008 Yaris; the 2008 and 2009 Sequoia and Scion xD and xB; the 2008 Highlander and Highlander Hybrid; and the 2009 Corolla and Matrix compacts.

In a report to the safety agency, Toyota noted that it originally want-

ed to conduct a "customer satisfaction campaign" but decided to pursue the recall after discussions with the agency. A customer satisfaction campaign can be as simple as an extended warranty, whereas a recall is far more expensive and demanding, requiring all vehicles to be repaired even if a problem is not evident.

Toyota said it would begin notifying owners by mail of the recall at the end of the month. Technicians will inspect, disassemble and apply grease to the switch free.

Toyota described the recall as voluntary, but under federal regulations once a manufacturer learns of a safety problem it must, within five business days, tell the safety agency of its plan for a recall or face a civil

In 2009 and 2010, the company recalled more than 11 million Toyota and Lexus vehicles worldwide to replace floor mats and sticky accelerator pedals.

Chilly conditions in store for weekend

By Roman Kowch STAFF METEOROLOGIST

Polar air continues to move into our region, and the first frost looks imminent tonight. In fact, temperatures could reach the freezing point outside Boston! A high pressure sitting in the Midwest is pulling cold air from Canada down into New England. Winds should be somewhat stiff today as well, but will sub-

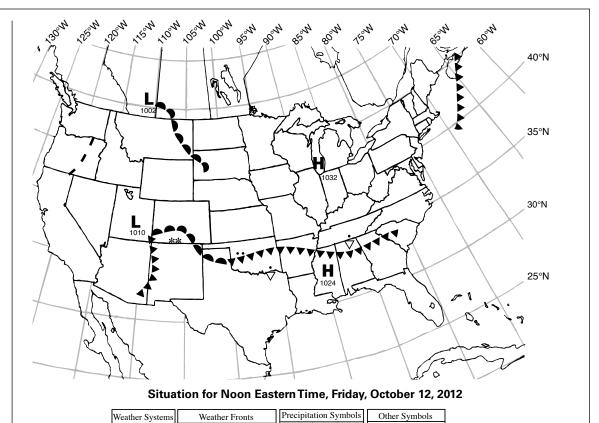
side on Saturday. By that time, the high pressure will reach us and provide clear, dry conditions. The cold temperatures will not last long because a low pressure will approach the Great Lakes, pushing warm air into the Northeast by Monday. Any significant rain chances should hold off until late Sunday, So the jacket is a better choice over the umbrella this weekend.

Extended Forecast

Today: Partly sunny. High 55°F (13°C). NW wind at 15 mph, gusts to 25 mph.

Tonight: Clear and cold. Low 33°F (1°C). NW wind at 10-Tomorrow: Sunny. High 54°F (12°C). W wind at 10

Sunday: Mostly cloudy. Chance of showers late. High near 64°F (18°C). Low near 44°F (7°C). SW wind at



Light

Moderate

Fog

Thunderston

Compiled by MIT Meteorology Staff and The Tech

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FRIDAY, OCTOBER 12, 2012

Lawsuit accuses equity firms of colluding on big deals

By Peter Lattman and Eric Lichtblau THE NEW YORK TIMES

The private equity giants Blackstone Group and Kohlberg Kravis Roberts are longtime rivals that compete for multibillion-dollar deals. But during last decade's buyout boom, according to newly released emails in a civil lawsuit accusing them of collusion, the two firms appeared to be on much co-

zier terms

In September 2006, for instance, Blackstone and KKR were both circling the technology giant Freescale Semiconductor. After a Blackstone group outbid a Kohlberg Kravis consortium to buy Freescale for nearly \$18 billion, Hamilton E. James, the president of Blackstone, emailed his colleagues about Henry Kravis, the billionaire co-founder of Blackstone's rival.

"Henry Kravis just called to say congratulations and that they were standing down because he had told me before they would not jump a signed deal of ours," James wrote.

Two days later, James sent an

e-mail to Kravis' cousin and cofounder, George R. Roberts. "We would much rather work with you guys than against you," James wrote. "Together we can be unstoppable but in opposition we can cost each other a lot of money."

"Agreed," responded Roberts.

The emails are part of a court filing Wednesday in an antitrust civil lawsuit brought against 11 of the world's largest private equity firms that accuses them of colluding to drive down the prices of more than two dozen takeovers of publicly traded companies. Plaintiffs in the case, which was filed in U.S. District Court in Boston in 2007, are former shareholders of the acquired businesses.

"These emails are strong signals of anti-competitive behavior," said Darren Bush, an antitrust law professor at the University of Houston. "It is always highly problematic when you have such freewheeling discussions between competitors."

Much of the 207-page lawsuit had been heavily redacted, but The New York Times brought a motion in August to make the all of the complaint public. A judge ordered the private equity defendants to file an unsealed version of the court papers, leading to the new filing on Wednesday.

The private equity firms scoff at the idea that their conduct was improper. A Blackstone spokesman, Peter Rose, said the Freescale deal was competitive and the firm paid a generous price for the company. "Blackstone and KKR have since competed intensely many times and have completed only a single deal together in the past six years," said Rose.

A spokeswoman for KKR, Kristi Huller, said the plaintiffs "make the preposterous claim that the entire private equity industry came together under a master plan to decide which firms would be permitted to acquire any particular public company."

The evidence in the case comes as the private equity firms and their business practices remain a focus of the presidential race. The Republican presidential nominee Mitt Romney founded Bain Capital, which is a defendant in the lawsuit.

At Hague, Libya insists it should try Gadhafi's son

PARIS — Libya is preparing to bring a wide range of charges against a son of Moammar Gadhafi, and to begin his trial by February, lawyers for Libya told the International Criminal Court at The Hague on Wednesday. They appeared at a hearing dealing with the question of whether Libya or the international court has the right to try the younger Gadhafi as well as a powerful intelligence chief in his father's regime.

Libyan authorities insist that the two men, Seif al-Islam Gadhafi, and the former intelligence chief, Abdullah el-Senussi, must be tried in their own country by Libyan judges.

A team of 12 investigators is collecting evidence against Gadhafi, including crimes like murder, torture, indiscriminant violence against demonstrators and recruiting mercenaries from Pakistan, lawyers for Libya told the panel of judges. They said he might be tried jointly with el-Senussi.

Judges at the International Criminal Court indicted the two men and signed their arrest warrants last year after the U.N. Security Council sent a request to the court to investigate reports of Libyan atrocities.

-Marlise Simons, The New York Times

Polled Latinos favor Obama

Latinos who are registered voters favor President Barack Obama over Mitt Romney by 69 percent to 21 percent, according to a national poll published Thursday by the Pew Hispanic Center.

Obama's lead over his Republican challenger among Latinos in the final stretch of the race is larger than his final margin in 2008 over Sen. John McCain. Obama won 67 percent of the Latino vote then, to McCain's 31 percent.

The Pew survey was conducted from Sept. 7 to Oct. 4, the day after the first presidential debate, which Romney is widely viewed as having won. The lift in polls that Romney has received since then is not reflected in this survey.

Approval for the Democratic Party among those voters is at its highest level since the Pew Center began asking survey questions on the issue in 2002, said Mark Hugo Lopez, associate director of the center, a nonpartisan research group in Washington. In the poll, 61 percent of Latinos said the Democrats had "more concern" for them, up from 45 percent in 2011. Only 10 percent now say the Republican Party is more concerned about Latino issues, the poll found

The impact of Latinos in the presidential election will very much depend on their turnout. According to the Pew poll, they are likely to continue to vote at lower rates than the general public, with 77 percent of registered Latinos saying they are "absolutely certain" to vote. In a recent poll by the Pew Research Center, the parent organization of the Hispanic center, 89 percent of all registered voters said they were certain to cast ballots.

—Julia Preston, The New York Times

Yemeni employee at US embassy in Sanaa is shot dead

By Nasser Arrabyee

THE NEW YORK TIMES

SANAA, Yemen — A senior Yemeni officer working in the U.S. Embassy in Sanaa was killed Thursday in an attack that security sources said bore the hallmarks of the regional al-Qaida franchise. The killing comes amid sharp American scrutiny of security at foreign diplomatic posts in the wake of the militant assault one month ago on the U.S. mission in Benghazi, Libya, which killed a U.S. ambassador, J. Christopher Stevens, and three other diplomatic personnel.

Witnesses said that two men on a motorcycle drove up alongside the car of the embassy employee, Qassim M. Aklan, and one of them opened fire, killing him. Aklan was in the west of the city; the embassy is in the eastern part. There was no immediate claim of responsibility, but militants have attacked official targets in Yemen in response to the government's campaign against cells of the regional franchise, al-Qaida in the Arabian Peninsula, which U.S. counterterrorism officials have called the terror network's most active affiliate.

The State Department condemned the killing as "vicious." Victoria Nuland, the department spokeswoman, said in a briefing: "He was a dedicated professional, and he will be greatly missed. We're coordinating closely with the Yemeni authorities to investigate this attack and help bring those responsible to justice."

But she said there was no certain information yet on whether he had been killed "for reasons that had something to do with his job or reasons that had nothing to do with his job."

Aklan had worked at the embassy for 11 years, she said, and was out with a family member when he was shot. In his most recent position at the embassy, he was employed as a security investigator and liaison, a fairly common

position in U.S. embassies, which means he could have been doing work that involved background checks or coordinating with local police.

Nuland denied earlier reports from officials in Yemen that Aklan had been helping to look into the episode last month in which protesters furious over a video produced in the United States that mocked the Prophet Muhammad breached the compound's outer security perimeter.

The demonstrations were part of wider regional unrest over the video that started in Cairo and spreading to nearly 20 countries across the Middle East and beyond.

It was during the start of that unrest that militants overran the Benghazi mission.

Asked at the briefing whether the State Department interpreted the timing of the killing — one month after the Benghazi attack — as significant, Nuland said, "We interpreted the said,"

Ex-aide to governor pleads guilty in Wisconsin

A former top aide to Gov. Scott Walker of Wisconsin pleaded guilty to one count of felony misconduct in public office in a deal with prosecutors Thursday, a week after Walker was subpoenaed to testify at the trial.

The former aide, Kelly M. Rindfleisch, who was Walker's deputy chief of staff when he was the Milwaukee County executive, before he was elected governor in 2010, was charged with four felony counts in January for spending "significant time" working as a fundraiser on government time for Brett Davis, then a lieutenant governor candidate. Her trial was scheduled to begin Oct. 15.

The plea bargain that Rindfleisch, 43, accepted Thursday would drop the remaining three charges. Prosecutors would also recommend that she serve probation and jail time on the remaining charge, which carries up to 3 1/2 years in prison. A sentencing hearing was set for Nov. 19.

"It holds public officials to account," said Bruce J. Landgraf, an assistant district attorney for Milwaukee County, who prosecuted the case

The deal was the most recent development in a continuing secret investigation into former aides and associates of Walker. The investigation has brought six criminal complaints from the Milwaukee County district attorney's office and has dogged the governor for months.

—Steven Yaccino, The New York Times

U.S. revises estimates for soybean production higher

WASHINGTON — After months of battling sweltering heat and drought, a bit of good news emerged for farmers on Thursday: The Agriculture Department revised its estimates for soybean production higher, a sign that the drought had less of an impact on the crop than feared.

The news was not all good, however. The department, for the fourth consecutive month, lowered its estimates for corn, the country's largest cash crop. The lower estimates for corn supplies means customers will most likely see an increase in meats and dairy prices at the grocery store next year as the cost of animal feed — made primarily from corn and soybeans — remains high.

The Agriculture Department crop estimates are published monthly, but analysts say the October report is significant because it is during the harvest across the Midwest and probably provides the most comprehensive view yet of the impact of the drought on the size of the corn, soybean and other crops.

"I don't think you are going to see any more significant changes in production figures," said Jerry Norton, an analyst at the Agriculture Department. "The figures out today capture most of the impact of the drought, so it's hard to see estimates getting much lower from here on."

Grain prices rose after the release of the new estimates. Corn rose $36\,1/2$ cents higher, to \$7.73 a bushel, while soybeans jumped $25\,1/4$ cents higher, to \$15.49 a bushel.

—Ron Nixon, The New York Times

Hezbollah flew drone into Israel, its leader says

By Anne Barnard

THE NEW YORK TIMES

Reporting was contributed by Hania Mourtada and Hwaida Saad from Beirut, and Isabel Kershner and Jodi Rudoren from Jerusalem.

BEIRUT — Hassan Nasrallah, the leader of the Lebanese militant group and political party Hezbollah, declared Thursday that his fighters had assembled and piloted a drone that flew 35 miles into Israel on Saturday, calling the flight an unprecedented achievement in "the history of the resistance."

In a televised, 50-minute speech, Nasrallah said the drone, which was shot down by Israel forces, had been designed in Iran and assembled by Hezbollah experts in Lebanon.

"It is our right to send other drones whenever we want," Nasrallah said, noting that Israel frequently violated Lebanese airspace. "It was not the first time and it will not be the lest" Hours earlier, Israel's prime minister, Benjamin Netanyahu, accused Hezbollah in the episode, saying that Israel had "thwarted over the weekend Hezbollah's attempt" to penetrate its airspace. The group has sent a drone over Israel at least once before.

There was no immediate official reaction from Israel to Nasrallah's speech, or warnings about the need for a military response against Hezbollah in Lebanon. If anything, there seemed to be an attempt to point a finger at Hezbollah's patron, the more distant Iran.

"It should come as no surprise that the military machine of Hezbollah in Lebanon is substantially made in Iran," said one senior official, who was not authorized to comment publicly on the matter.

Nasrallah's speech was closely watched because of fears that Hezbollah, a longtime ally of Syria and Iran, might provoke a clash with Israel to distract attention from Syria's crackdown on the nearly 19-month uprising there. Hezbollah has been accused by the United States government, Syrian rebels and Lebanese rivals of assisting the Syrian president, Bashar Assad, in his crackdown. The possibility of Syria becoming a proxy war, with involvement from Hezbollah and Iran on one side and powers like Saudi Arabia, Turkey and Qatar on the other, is one of many factors that could fuel regional escalation of the conflict.

Nasrallah denied that he had ordered his fighters into Syria, but said the group reserved the right to join the battle in the future.

At the same time, he appeared to subtly distance himself from Assad. He never mentioned Assad's name — speaking only of "the Syrian regime" — and refrained from praising Syria's government, as he has in the past, as a pillar of resistance against Israel's occupation of Palestician territoria at territoria and the same appeared to subtract the same appeared to subt



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LETTERS TO THE EDITOR

EdX going forward

The following letter was addressed to The Tech's editorial board.

Your editorial of October 5 argued that for edX to succeed in transforming residential education, it needs a clear vision of success, developed by the faculty and I could not agree more. To address this need, the administration is finalizing plans to create a new position, tentatively titled the Director of Online Learning. The post will be held by a member of the faculty, and we expect to announce the appointment within weeks. The Director will work closely with faculty and students to assess our current model of on-campus education and to develop the kind of long-term vision, standards of success, and plans for space and staffing that you call for. This new appointment should be a springboard to a period of intense progress, and I am counting on the collective wisdom and inventiveness of my faculty colleagues and our students from many disciplines to guide us, just as faculty and students led the creation of OCW and of MITx itself.

In his leadership of MITx, Chancellor Grimson already draws on the counsel of a working group composed of faculty from all five Schools as well as a number of students. As I continue my listening tour around the campus, I, too, am actively seeking input and ideas about the best way to blend residential and online education. We have also heard from many faculty members across the Institute who. in the classic spirit of MIT, are eager to get their hands on these new educational tools and experiment with their own courses. In direct response to faculty queries, the Chancellor recently developed and distributed an FAO document that explains the nuts and bolts of how faculty

members can create pilot courses for the soon-to-be-released internal platform called "edX Studio"; these FAQs will be posted on the MITx site, too. What's more, as part of its mission, edX is energetically collecting and assessing data on how students learn both on campus and online; early results are promising, and the research has only begun. As we continue to explore the possibilities of online learning, we will offer new tools and venues to engage the creativity and expertise of the broader MIT community.

I believe that MIT will invent the future of the residential research university using our own campus as a laboratory and tapping the energy and insight of our faculty, students, staff, Corporation members and alumni. To arrive at the most inspired answers, we need to begin by continuing to ask questions candidly and by offering possible answers that stimulate a constructive community engagement.

I look forward to being part of this spirited conversation.

L. Rafael Reif

IM Soccer addressed issues

We would like to thank Feras Saad for pointing out some issues with the soccer intramural league in his article "The soccer intramural system needs serious reform." The IM executive committee has met with the soccer manager and team captains to address and resolve the issues.

There were a number of errors in Feras' article that we would like to correct:

· Soccer is offered only in the fall and spring seasons, and is currently composed of two leagues in the fall.

· It is the responsibility of team captains to report game scores on Athleague, so there should always be record of a game even if referees don't show up.

• Sports Managers, the MIT students who "organize sports events for everyone to enjoy" are actually paid for their time.

We apologize for any disorganization within the soccer league this fall. The Soccer Manager is new to MIT Intramural Sports. Managing soccer is complicated by the fact that game locations and times are not consistent week to week. The Manager must manually schedule and create every single game on Athleague.com.

This is a time-consuming process, especially when one is just learning how the whole system works. The Soccer Manager has corrected the issues and the organization should be much improved.

If you have any questions, concerns, or suggestions about an IM sport, we ask that you first contact the league's Sports Manager who can quickly resolve your concerns. Their contact information is on the *athleague.com* page. If the Sports Manager is not helpful or the issue is not specific to a sport, please contact the IM Executive Committee at im-exec@mit. edu. We are here to help you have the most enjoyable IM sports experience possible.

If you would like to be more involved with organizing an Intramural Sport -Manager positions are open to all MIT

The MIT Intramural System fosters a low-stress environment for exercise and enjoyment. The primary goal is to have fun, whether you're playing unihoc, basketball, badminton, or soccer. Get out there and play sports!

Jai Saranadhi '14, Leah Alpert '13, and Quantum Wei '15 IM Sports Executive Committee

GUEST COLUMN

Our duty as scientists

Public perception is important, and MIT students can't stand idly by

By Sam Shames

Science today has an image problem. Too often it is seen as an esoteric activity of academics, whose results have no influence on the daily lives of the American people. When the news of the neutrinos supposedly going faster of light was reported and the public saw the scientific community scramble to debunk this claim, I cannot help but wonder what an American who does not follow science thought of the coverage.

Surely, he would have thought that all the fuss was for nothing. Whether or not the neutrinos were in fact breaking the laws of relativity does not affect his life. He must have thought that the coverage was a waste of time and the scientists were wasting money. Attitudes like that are exactly why science needs a makeover, and we as MIT students are in a unique position to provide this fresh start. Science has improved the quality of life of millions of people, and we need to promote this service.

Science has a deep history of service to the community. When Francis Bacon first outlined his method for Baconian Inquiry in the early 1600s, known today as the scientific method, he stressed that science could help improve the standard of living for everyone. This was a radical idea; up until that point, science had been thought of as a pastime for rich aristocrats. Furthermore, the results of their experiments were often kept secret. No one considered that the science could be used as tool to benefit mankind. Bacon challenged this view, and his view helped define the modern scientific paradigm. Today, no one questions the fact that scientific research can benefit society, but we must remind the general public that this is why scientists exist: to makes discoveries which improve the quality of life for all.

One reason that governments are able to fund science is because the results of the research have radically increased the standard of living and benefited society as a whole. However, in 2012's America, the predominating view of a scientist is not of someone devoting her- or himself to helping mankind. More likely, the dominating belief is that scientists are people who take government money and do research that has no practical benefits whatsoever. Our job as MIT students is to challenge and change this belief. As any researcher at Alcator C-Mod can attest to, the stakes have never been higher.

I cannot walk through campus without being reminded of all the practical benefits of the research that our faculty

Perception of science, Page 5

CORRECTIONS

The name of one of the author's for last Friday's guest column, "Childcare — a gift for the MIT family," was misspelled. He is Thomas Crouzier, not Thomas Cruzier.

OPINION POLICY

Editorials are the official opinion of The Tech. They are written by the Editorial Board, which consists of Chairman Aislyn Schalck, Editor in Chief Jessica J. Pourian, Managing Editor Connor Kirschbaum, Executive Editor Ethan A. Solomon, and Opinion Editor Andy Liang.

Dissents are the signed opinions of editorial board members choosing to publish their disagreement with the

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Letters, columns, and cartoons must bear the authors' signatures, addresses, and phone numbers. Unsigned letters will not be accepted. The Tech reserves the right to edit or

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The Big Mo and the Big Three

25 days, many possibilities

By A.J. Edelman STAFF COLUMNIST

There are 25 days left until November 6, 2012. In the week and a half since the first presidential debate, polls have shifted significantly, changing the Electoral College (EC) math. While Governor Romney holds a lead in the national nationwide polling average, the popular vote is not an accurate barometer from which to measure the outcome of the coming election, since it is the Electoral College (the delegates afforded to individual states) that will determine the victor. Therefore, election-watchers (and the candidates) will closely be watching the individual state by state polls as the race comes down to the

As of now there are at least 12 states considered to be toss-up (or battleground) states. Each of these states holds different numbers of electors in the EC. Prior to last week's debate there were 9 states considered to be true battlegrounds. Since the debate, two additional states have moved from solid Obama into the toss-up category. The battleground states are in the chart accompanying this article (Bold indicates new battleground

The Path to 270

The Big Mo: In politics, momentum is key. Sometimes referred to as "the big mo," momentum provides not only fundraising and enthusiasm boosts, but also can act as a catalyst to help sway undecided voters. It is in many ways more important than a campaign's finances. The momentum heavily favors Romney right now, and all recent polls reflect this, especially in the swing states.

Particularly troublesome for the Obama campaign is that Romney has now pulled ahead or is within the margin of error in many swing states. Momentum heavily favors Romney in Florida, North Carolina, Ohio, and Virginia, which comprise the bulk of the delegates up for grabs.

As the race moves into its final few weeks, both campaigns will focus their time and money in states they consider essential and abandon states that they consider out of reach. For the GOP this means that Pennsylvania and Michigan will continue to receive very little - if any - attention. New Hampshire may also be abandoned. Likewise for Democrats, North Carolina and Missouri, where Romney leads outside the margin of error, may be dropped.

The Big Three

The most obvious means of securing victory is for either candidate to win two of the three major tossup states — Florida, Ohio, Virginia. No Republican has ever won the presidency without winning Ohio. Should Romney secure victory in all three of these states he is virtually guaranteed victory. So too if President Obama takes two of the three.

It is still too early to predict what the final map would look like but if trends hold, but expect Obama to hold Iowa while Romney adds North Carolina, Missouri, Virginia, and possibly Florida to his column.

The president maintains an edge in polling and according to many models has a greater chance of winning than does Governor Romney, yet ultimately the deciding factor in the big-three states may be get-out-thevote (GOTV) efforts. Here too momentum may be swinging Romney's way. The GOP has seen a 63 percent surge in volunteers and so far has an edge in early voting applications (bucking a trend). Yet Democrats are well known for their formidable GOTV framework, which benefits greatly from the support of union volunteers. Expect GOTV efforts to be a large factor in whether some swing states vote one way or the other. In 2008, Obama received fewer votes on Election Day than did McCain in Colorado, Florida, Iowa, and North Carolina, yet still won those states because of his success at driving early voting.

Pennsylvania, Michigan, and New Hampshire

While Governor Romney's father was once a popular governor of Michigan, the auto bailout is very popular in Michigan. Trends suggested that MI would hold solidly Democratic, but two new polls suggest that Governor Romney has closed a double digit gap and is now within the margin of error (statistically neck-and-neck with the President). This is likely attributed to Governor Romney's strong showing in the debate, which has also helped Romney nearly erase a double digit deficit in Pennsylvania, which has gone Democratic in each of the last 5 presi-

likely continue to focus his time and money elsewhere, in the coming days there will likely be a flurry of private polls conducted by Super-PACs and the campaigns to confirm the results. Should an ad-blitz break out in any of these states, it will signal independent confirmation and both candidates will shift their strategies and campaign appearances accordingly. This is especially true of Pennsylvania, where Obama holds a 4 point advantage, almost within the margin of error, yet still breaks the 50 percent barrier. New Hampshire doesn't have many delegates, vet Romney has ties to the state and opening up a new battleground in the Northeast may pressure Obama. Again, the ad-wars will tell if private polling confirms NH's toss up status. Another 40 electoral votes in play will open up further permutations by which the candidates can gain the 270 delegates needed for victory.

Democrat Republican Swing State **Predictions** dential elections. While initially Governor Romney will There is still significant time left in the campaign. Twenty-five days is an eternity in politics. Just as the final month of the 2008 campaign ultimately propelled Obama to victory, so too anything can happen during this election cycle. However, given the current momentum and polls, these are possible

Tie: It is possible for the Electoral College to reach a tie, 269-269. A tie hasn't occurred in almost 200 years, and the chance in this cycle is remote. In such a case the president and vice president would be chosen by the House of Representatives and Senate, respectively. Of the 12 battleground states there are 61 different combinations for a tie

Assuming that no tie takes place, then one of the more likely outcomes may look like a repeat of 2004, where the election was decided by Ohio, or a repeat of 2000, where the election was decided by Florida. Similar to 2000, it is not inconceivable that a candidate wins the popular vote yet loses the Electoral College, yet such an outcome would likely see the roles reversed, with the Republican candidate winning the popular vote and the Democratic candidate winning

Current Poll Averages Shift in October in % Points State **Delegates** (Real Clear Politics aggregate) (by most recent individual polls) Florida Romney +1 Romney +3.5 Pennsylvania Obama +4 Romney +4 Obama +1 Ohio Romney +7 Michigan 16 Obama +6 Romney +9 Romney +3 North Carolina Romney +6 Virginia 13 Tie Romney +5 Missouri 10 Romney +5 No Change 10 Wisconsin Obama +5 Romney +9 9 Colorado Romney +0.5 Romney +3.5 6 Obama +3 Romney +2 Iowa Nevada Obama +1 6 Romney +3 New Hampshire Obama +4.5 Romney +6 Likely/Lean Obama (all states): Likely/Lean Romney (all states): TOTAL DELEGATES 156 (270 needed to win) 217 (53 to go) 181 (89 to go)

SOURCE: REALCLEARPOLITICS. COM

What does the Electoral College landscape look like? In 12 states where polling indicates Obama and Romney are very close, Romney has seen significant gains this month, mostly seen after his strong debate performance last week. The rightmost column indicates the number of percentage points by which a poll shifted, comparing polling averages from earlier in the month with the most recent individual polls. Counting all states, not just ones in the table, Obama has 217 electoral votes that are very or somewhat likely, compared to Romney's 181. (Data from RealClearPolitics.com, a polling aggregator and news site. Data was current as of Wednesday, Oct. 10, due to The Tech's publication schedule.)

The perception of science

MIT students need to promote the field

Perception of science, from Page 4

conducts. Posters everywhere highlight the importance of research in areas ranging from energy storage, to biomedical devices, to robotics. The spotlight on the MIT homepage offers a daily reminder of the continuous stream of innovative ideas that MIT researchers produce and how these ideas will benefit society. Unfortunately, stories like these rarely reach the general

We as MIT students know first-hand about the value of science; we see it every day. We also represent the face of science in America — I am continually amazed by the amount of articles on science and technology in the New York Times which quote MIT affiliates. We are the ambassadors of science and as such, we must do a better job promoting it. With this power comes the responsibility to show the general public how science benefits society. People

We must remind the public of this fact; science has a proven track record.

have short memories; most probably they do not remember how almost all gamechanging technologies from the computer to the Internet emerged from governmentsponsored research done by scientists in colleges and universities.

We must remind the public of this fact;

science has a proven track record. But moreover, we must inspire them with ideas about what the future might hold. Given what science has produced, we should be offering the public a window into the generation of scientific discoveries.

Organizations like the TED conferences have started to take up this duty, but we at MIT must do more to be a part of the solution. By stressing the idea that science can improve the standard of living and benefit everyone, we scientists and engineers can help change the public opinion on science and scientists. If more people realize just what a difference scientists and engineers make, then we may inspire more people to join us as we try to use science to save the

Sam Shames is a junior in Course 3.

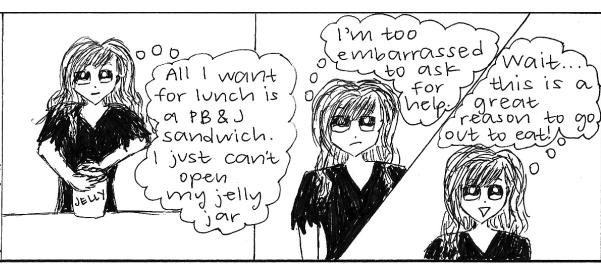


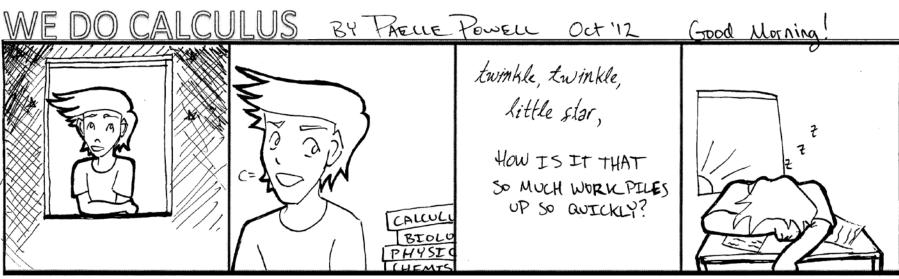


Check out The Tech's tive map of battleground states. http://bit.ly/swingstates2012











Dinosaur Comics by Ryan North

Hey, remember when I argued QUITE PERSUASIVELY that Aladdin was history's greatest monster for never ever wishing to an end to suffering?



She doesn't say "Mirror

mirror on the wall, how

can life's curse of

FROM SNOW WHITE'S WICKED QUEEN.



The story glosses over it kinda quickly, like they KNOW it's nuts, but this lady this QUEEN - has a magic mirror which, due to its magical ways, will HONESTLY ANSWER

ANY QUESTION YOU PUT TO IT AS LONG AS IT RHYMES. And what does she use it for?

Prettiness tests!

Exactly!



Nor does she say "Mirror mirror on the wall, how can clean energy be provided for all?" or even "Mirror mirror mounted here, how can chicks and dudes have satisfying careers?"

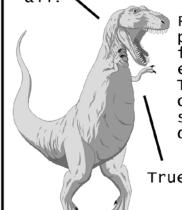


NOR does she ask "Mirror mirror mounted centrally, please provide a closed-system technique of reversing entropy"

What a jerk!!



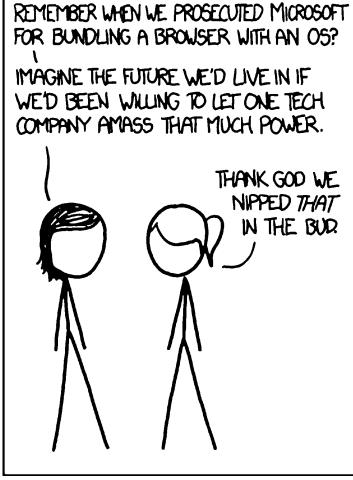
Mirror mirror on the wall, who's the fairest of them a11?



Fair like pretty or fair like equality? The word has overloaded semantic duality.

True enough!

[1118] Microsoft



snarkily replace with '\$'s. er grabs because they don't have any 'S's in their names for critics to Facebook, Apple, and Google all got away with their monopolist pow-

HIDDEN BETS by Bruce R. Sutphin

Solution, page 12

ACROSS

- 1 Drudge
- 5 Birthplace of seven presidents
- 9 Irrational outbursts
- 14 Scabbard adornment
- 15 Often
- 16 Light on one's feet
- 18 "I couldn't agree more!"

17 Rock group

- 19 On edge
- 20 Subtle literary device
- 23 4 Down debut
- 24 Shade of suede
- 25 Resort town lineup
- 28 Train of thought 30 Spanish dessert
- 32 Criticize
- 33 Snoopy alter ego
- 36 Compatriot
- 37 Smug feeling
- 39 Unpaid TV ads 41 Allowed to continue
- 42 Vaguely viewed
- 43 Scepter toppers 44 Apple messaging
- software 48 San Joaquin Valley city
- 50 Tee, e.g. 52 In the past
- 53 Severe storm
- 57 Piano parts
- 59 Turning point
- 60 Keeps reminding 61 Dodge
- 62 Frequent launcher
- 63 "See ya" 64 Dub worthy
- 65 Tube trophy
- 66 Plunges

DOWN

- 1 Do well
- 2 Ryder Cup side

20

62

- 3 Shakespearean king
- 4 Share trading org.
- 5 College World Series locale
- 6 Prone to error
- 7 Frosted
- 8 "Good heavens!"
- 9 Allot
- 10 Deal facilitator
- 11 With the utmost care
- 12 2012 British Open champ
- 13 Come to understand 21 Longtime senator
- Thurmond 22 Moby-Dick vessel 26 Part of many rapper's
- names
- 27 Watch furtively 29 Spanish eyes
- 30 Shaving stuff
- 31 Wacky
- 34 Julie & Julia director

- 35 Blunt instrument
- 36 Letters on a converter

60

63

66

NEUNEUNEUNEUNEUNEUNEUNEUNEU

- 37 Was realized
- 38 Stable sound
- 39 PC viewable page format 40 Formal greeting
- 43 Heavy weights
- 45 State always on
- standard time 46 Daters' concern, perhaps
- 47 Sculpted forms
- 49 Unburdens
- 50 Refraction device
- 51 55 Down portion, often 54 Isak Dinesen, e.g.
- 55 It's held for
- questioning
- 56 How some files are
- backed up 57 Fly catcher
- 58 Misfortune



by Jorge Cham













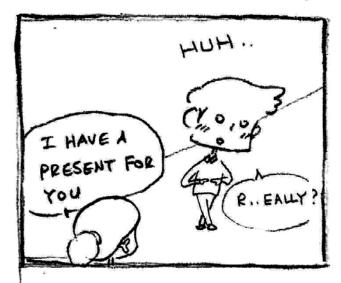






CALL THE 24-HOUR HELPLINE AT 617-253-4481 MIT MEDICAL IS CLOSED OVERNIGHT.

SKETCHY BY Dohyun Lee - BIRTHDAY PUNCH AWW, THANKS, JULIANA, FRANK, FRAN







Sudoku

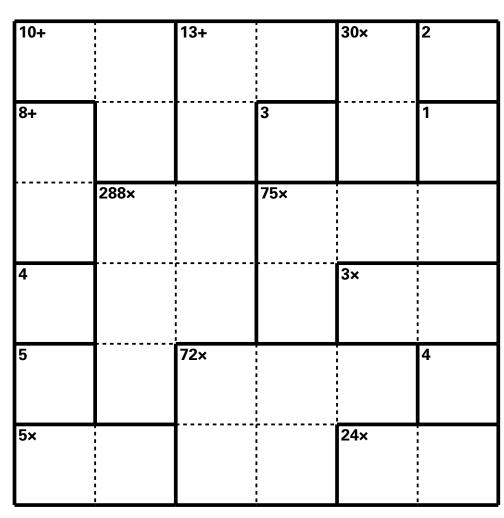
Solution, page 12

6		4			8	5		
	5	3		6				2
			5					
5				4	7		9	1
		9				8		
2	3		9	8				5
					5			
7				9		3	1	
		2	4			7		8

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.

Techdoku

Solution, page 12



Instructions: Fill in the grid so that each column and row contains exactly one of each of the numbers 1–6. Follow the mathematical operations for each box.

 FRIDAY, OCTOBER 12, 2012



Hepatitis B Screening Training Session









Sunday October 14th 7-8pm, McCormick Brown Living Room

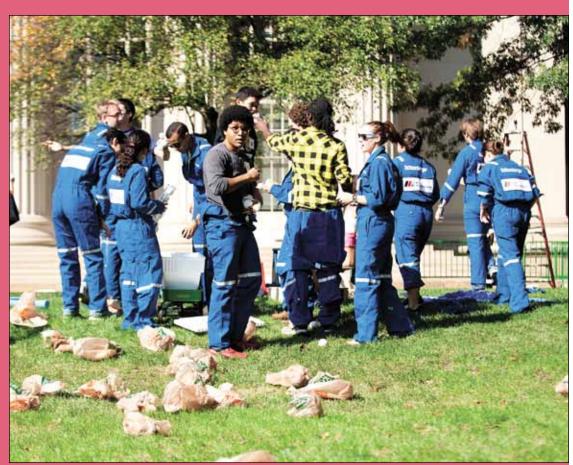
- Learn how you can help screen patients for Hepatitis B as part of Team HBV
- Get involved as a member of exec board
- Enjoy bubble tea!



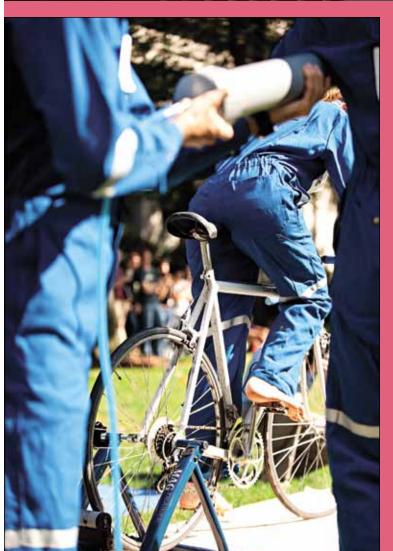
O THE TECH FRIDAY, OCTOBER 12, 2012

Target practice: 2.009









CHRISTOPHER A. MAYNOR—THE TECH
Students in 2.009 (Product Engineering Processes) launched
"snowballs" at polar bears and
target flags last Friday in Killian
Court as part of the class' engineering process challenge. A variety of launching devices, such as giant slingshots and pneumatic guns
powered by bicycles, were present at the festive event.





MOVIE REVIEW

Closing the loop

Present and future collide in Rian Johnson's action-packed Looper

By Jaimie Chung

STAFF WRITER

Despite the fact that *Looper's* entire premise is time travel, it's not your typical sci-fi film. It is hard to give a summary of the film without unraveling the plot, which speaks to how intricate the storyline is. Without giving too much away, the film centers on Joe (played by Joseph Gordon-Levitt), who is meant to kill his future self (played by Bruce Willis). Little does he know that his future self has a plan of his own to both stay alive and prevent future events.

Director and writer Rian Johnson cleverly evades the complications that come with time travel by having Bruce Willis's character state outright, "I don't want to talk about time travel shit." Viewers who want to see a true science fiction film will be disappoint-

ed (the time machine, resembling an old-fashioned scuba diver mask, is also rather lackluster next to the futuristic computers and printers), but the film proves to be perfectly entertaining and well-made. By side-stepping the issues of time travel, Johnson makes room to ask questions like whether "the ends justifying the means," — a theme that facilitates a twist ending which left me speechless.

'I don't want to talk about time travel shit.'

—Bruce Willis, as future Joe

I was particularly impressed by the jargon Johnson created. "Looper" refers to a person, like Joe, who kills people sent back in time from the future (so that there is no dead body as evidence). The term is apt

because these assassins operate under the knowledge that they will eventually have to "close their loop," or kill their future selves to tie up loose ends. Throughout the film, characters use phrases such as "letting your loop run" and "it's the second loop this week," which helps legitimize the alternate reality Johnson has created.

Cinematographically, the film was a consummate work. Motifs like close-ups of cigarette smoke and ticking clocks are intricately placed, the camera work while Gordon-Levitt is on an acid trip is breathtaking, and the details necessary to maintain consistency between the future and current Joe are painstakingly accurate. For example, in a diner scene, we see a newly injured, bandaged ear on Gordon-Levitt and a disfigured ear on Willis. Most of all, the dialogue is sharply witty. Jeff Daniels, whose character is from the future, utters

★★★☆

Looper

Directed by Rian Johnson

Starring Joseph Gordon-Levitt, Bruce Willis and Emily Blunt

Rated R

Now Playing

one of the best lines: "I'm from the future, you should go to China." I could even swear I heard Willis yell "yippee ki-yay, motherfucker!" over a machine gun, but that could just be wishful thinking.

Another nearly flawless aspect was the casting. Veterans Bruce Willis and Jeff Daniels bring their usual prowess to the screen, while Paul Dano and Emily Blunt successfully transform into roles that are unlike any others they have played before (Blunt even tackles a Southern accent). A highlight comes in the form of Joseph Gordon-Levitt, who supposedly spent hours in make-up having prosthetics applied so that he would look more like Bruce Willis. Gordon-Levitt is an incredibly versatile actor, but his kind features usually hinder him when playing serious roles. Though his contrived voice and strangely perfect eyebrows are distracting at first, he is able to capitalize on the disguise and adopt a convincing tough guy persona. Unfortunately, child actor Pierce Gagnon, who plays Cid, does not bring enough depth to his character, and although he only has a few scenes, these scenes are crucial to the plot.

My largest grievance is that the film is disguised as a sci-fi film when it is actually a drama with sci-fi elements. Sci-fi has often produced some of the most philosophical films, and these films have the technology at the forefront. *Looper* was publicized as a time travel film, but Johnson chose not to address the muddiness of the concept and to just take the best parts of science fiction — cool graphics, an arsenal of weapons, and the "trippy" factor.



PHOTO BY ALAN MARKFIELD. COURTESY OF SONY PICTURE.

Current and future Joe (Joseph Gordon-Levitt, Bruce Willis) go head-to-head in time-travel action film Looper.

Solution to Crossword

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Solution to Sudoku

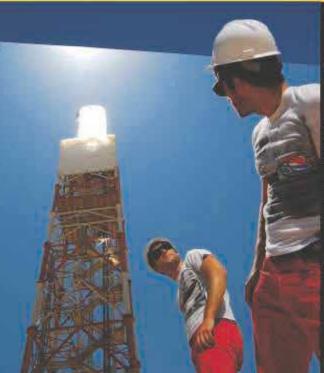
from page 8

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Solution to Techdoku

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RESTAURANT REVIEW

Area Four's student-friendly lunches

Forego the usual food-truck lunch and head over to Tech Square

By Katerina Botchkina

If you're particular about coffee, you know about Area Four already — their shots are dense, their lattes are tiny and strong, and if, like me, you have a shameful preference for vats of the watery American stuff, they do a great job at that, too.

But it's probably not the first place that comes to mind for a cheap, quick weekday lunch. Sure, their airy indoor seating area is never empty from noon to 3 p.m., but the people eating there are the kind that want to pay 16 dollars for a personal pizza and can wait 20 minutes for it to arrive. That's a calculation that, on your average Tuesday, would send me directly to a food truck.

That changed this summer, when Area Four rolled out a hot dog cart — wheels, umbrella and all — and parked it just outside their Main Street entrance. The hot dogs are made from 100 percent grass-fed beef sourced from a California farm — you can read about their ethical standards as you wait in line. While you're at it, take a look at the 12-item ingredient list and consider your condiment options: All the standards, plus some pleasant surprises, like a snappy banana-pepper relish. And priced at \$4 a piece, they're clearly a bid to lure you from

The hot dogs are 100% grass-fed beef sourced from a California farm.

Are they mind-blowing? Of course not. They're hot dogs. Did it feel fantastic to sit in the sun and lick yellow mustard off my fingers instead of carrying (yet another) styrofoam clamshell back to my office? Absolutely. And if you go before the weather remembers it's October and Cambridge, you can have your hot dog with a side of bocce ball or hackey sack — provided, for free, in a weird but kind of compelling gesture by the establishment. Why not?

But the real draw of Area Four will always be those pricey pizzas, and the good news is that they, too, are becoming more student-friendly: come with your ID Monday through Thursday and get a perfectly charred margherita pizza and a pint of nice local beer — Rapscallion Honey Lager, say, or Mayflower IPA — for 12 bucks. Or order to go and get \$10 off any two large pies -I'd get the gorgonzola/caramelized onion/ walnut combination, which is salty, buttery, just sharp enough and completely delicious. I had my last one between classes with a coffee, but what it really needed was one of Area Four

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those Rapscallions.

I won't be abandoning my usual lunch options for a steady diet of Area Four: It still comes close to \$15 for pizza and a beer, and, grass-fed or not, there's a pretty definite weekly limit on how many hot dogs I can feel great about eating. (That would be one. Okay, I'm lying — three). But Area Four makes for a very welcome addition to the weekly lunch rotation and, while they're making no big secret of their student-baiting plan, I don't really mind being baited.

EXHIBIT REVIEW

If music is art, are too the instruments?

The MFA's extensive collection of musical instruments offers surprises for the curious eye

By Angelique Nehmzow STAFF WRITER

You may think of a painting as a work of art, but do you ever think of a paintbrush as one? What about music - you may think of musical pieces as works of art, but how do you view musical instruments? Are they just tools, or can they be works of art themselves?

The MFA has an oft-overlooked, Aladdin's cave of an exhibition room dedicated to displaying a small cross-section of its impressive collection of musical instruments. The collection is diverse, with over 1,100 instruments of all different kinds, dating from ancient times to the last century, and sourced from all over the world.

Hung from the walls, displayed in cases, or placed on raised platforms are instruments you have never heard or dreamed of. There are curiosities such as an ndongo, a fantastic eight-stringed lyre of the Ganda people (in modern Uganda), made with snakeskin stretched over a wooden bowl and decorated with monkey hair and cowrie shells, and a rkang-gling, a 19th century Tibetan trumpet made of human thigh bone and decorated with turquoise and coral

There are also many earlier versions of familiar instruments, and it is possible to trace the evolution of these: From a cased clavichord to a standing French harpsichord, with two tiers of keys and a classical landscape painted in detail on the inner surface of its lid, to a beautiful pianoforte from 1796 made for the Queen of Spain — designed by the furniture-maker Thomas Sheraton, and decorated with cameos by Wedgwood. The pianoforte even has three pedals, the first and second being "soft" and "sustain" pedals, and the middle one being a bass drum beater (I kid you not), which was apparently incorporated due to an interest in Turkish music and culture at the time.

As well as seeing the predecessors of modern-day instruments, it is also fascinating to see some innovative instruments that fell out of use or never quite caught on. For example, the musical glasses (or grand harmonicon) made in 1830 in Baltimore, is a rectangular mahogany fold-up case played

by running wet fingers along the rims of the twenty-four stemmed glasses contained within (a mechanized version, in which the glasses rotated, was later made).

Naturally, if you see these instruments, you will want to know what they sound like, and fortunately the museum offers audio guides with recordings of many of the instruments on display. These audio clips are available online along with photos and information about each piece in the collection.

You may think of music as art, but how do you view instruments?

If you're looking for something more engaging still, the museum hosts talks and demonstrations about items in the collection. There is a regular "Highlights of the Musical Instrument Collection" lecture by MFA curator Darcy Kuronen, in which he introduces and plays a selection of the instruments. I highly recommend it, as Kuronen

Musical instruments collection

Museum of Fine Arts

Ongoing

Free with MIT ID

is witty and enthusiastic and tells plenty of interesting anecdotes. There are also musicians who come in to discuss and perform on specific instruments. Upcoming sessions include "The Northumbrian Bagpipes," "The Modern Mandolin," "The Hardanger Fiddle of Norway," "The Middle Eastern 'Ud," and "The Pipa: Lute of China." For more information, check out the MFA's website.

Whether you browse it online, visit and pick up an audio guide, or attend a talk, you're bound to find something intriguing and unexpected in this collection. This humble room packs a punch — history lesson, concert, and art exhibit all in one!

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BOOK REVIEW

Banksy revisited

A look back at the revolutionary oeuvre of an anonymous vandal

By Roberto Perez-Franco

STAFF WRITER

You know the dull wall of Building E38 (pink, cream, whatever) that runs between MIT Press and Cosi? The other day somebody had the audacity (dare I say, the good heart) to spray-paint two machine guns with barrels curved together in the shape of a heart. When I saw this act of vandalism, I smiled and nodded. For I have learned to appreciate this kind of art. Street art. And it's thanks to

Maybe you don't know who Banksy is. Most people don't. This is a shame, for he is one of the most memorable visual artists of his generation. I call him an artist, but he prefers to be called a vandal. He's also a provocateur, a thinker, a poet, and Zen master of sorts.

In a new book on the elusive artist, Banksy: You Are an Acceptable Level of Threat, Patrick Potter describes Banksy as "an anonymous street artist from Bristol who rose to international fame in the late 1990s and the present day chiefly by illegally spray painting stencil designs across the major cities of the U.K. and North America." It's not street art if it isn't illegal, we are reminded, along with a quote from Banksy: "Crime against property is no real crime."

At this point, Banksy is anonymous by choice. Not only his choice, mind you, but the stubborn denial of his followers and fans: "Our myths are far more important to us than some twat with a real life." Banksy will live forever anonymously,

writes Potter, "and that is as it should be. Even if he came tomorrow and revealed herself. We still wouldn't have it." Plus, anonymity is kind of handy; if you're going to play Zorro, you better damn well wear the mask.

As an artist, Banksy has tackled some of the most controversial topics of the day. In 2008 Banksy went to New Orleans, to "draw attention to the slow recovery of the city and criticise the perceived lack of political will to put money into the clean up." And his "summer project" on Israel's Wall has been called "one of the most pertinent artistic and political commentaries in recent memory" by a supporter of the Palestinian cause. Given these risky moves, anonymity is not the only layer of protection Banksy uses. Another one is replication. As Potter points out, "In his early days it seems likely that Banksy was one guy, these days there are reasons enough to suspect that there might be more than one artist working under the

Banksy is one of the most memorable visual artists of his generation.

If you are not familiar with Banksy not the man, but the style, the school of thought, the revolutionary brand — I recommend you take a look. A fast and fun way to become acquainted is to watch

Banksy: You Are an Acceptable Level of Threat

Compiled by Gary Shrove Text by Patrick Potter Design by Lee Crutchley **Gingko Press**

June 2012

his Oscar-nominated documentary, Exit Through the Gift Shop, which Potter accurately describes as "a disorienting hall of mirrors, fun to watch but ultimately leaving you with the feeling you'd been conned but you still weren't sure exactly

Another way is to grab a copy of Banksy: You Are an Acceptable Level of Threat, and look back at the mesmerizing images of the protester throwing a bouquet of flowers, the girl whose heartshaped balloon is blown away by the wind, and the ubiquitous Banksy rats. For if you contemplate them, as if a Zen koan, you will understand who Banksy is. As said by Banksy himself, "there's nothing more dangerous than someone who wants to make the world a better place."

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Upcoming Dalai Lama visit thrills City of Medford

Boston visit hosted by MIT's Dalai Lama Center for Ethics & Transformative Values

By Lisa Wangsness

THE BOSTON GLOBE

MEDFORD — It is an ordinary working-class neighborhood: clapboard houses, chain-link fences. There is a statue of the Virgin Mary in one front yard; in another, a Halloween ghost waves in the wind.

But something extraordinary is happening here. Fences are coming down. Aluminum bleachers are going up. Thursday morning, a crew will begin erecting a 280-foot-long tent, large enough to fit more than 1,800 people.

The Dalai Lama is coming to Magoun Avenue. And — never mind the disruption, the noise, or that there aren't many Buddhists in these parts — the neighbors are pretty much thrilled.

Jim McCormick, a former construction worker who has lived on the street for 20 years, said his sister-in-law is coming from North Carolina for the event. And his 86-year-old mother-in-law, an observant Roman Catholic, had been eagerly looking forward to it before her recent death. "She would have been right out there," he said.

The Dalai Lama is coming to Magoun Avenue.

The mustard-colored house across the street from McCormick's is the Kurukulla Center for Tibetan Buddhist Studies, a homey dharma center where American Buddhist converts and many members of the small Tibetan ref-

ugee community in the area gather to pray and meditate.

His Holiness first visited the Kurukulla Center in 2003, welcomed there by the late Geshe Tsulga, who fled Tibet weeks after the Dalai Lama in 1959 following the uprising against the Chinese bans, and major construction that shoehorning an event of this size into a residential neighborhood — not to mention the intense security and the small Tibetan market to be set up for the day — are normally the sort of disruptions that set city officials' teeth on edge and

At 7:30 Wednesday morning, a massive truck from a scaffolding company in South Boston squeezed a set of bleachers to seat 300 people into the backyard.

occupation, and who served as the Medford center's resident teacher for 17 years. Before he died in 2010, Geshe Tsulga implored the Dalai Lama to return to Medford, said Wendy Cook, the former center director and now a yoga teacher there

This visit "is a fulfillment of our teacher's dying wish," Cook said. It will come Tuesday at the end of a three-day trip to the Boston area hosted by the Dalai Lama Center for Ethics and Transformative Values at MIT, which includes a talk at the Marriott Copley Hotel in Boston on Sunday and panel discussions on global environmental, economic, ethical, and governmental issues at MIT on Monday.

When the New York office of the Dalai Lama notified the Kurukulla Center that he would make room in his schedule for a private event there this fall, the center's leaders were overjoyed. In 2003, a couple hundred people attended. This time, they thought, perhaps they could invite a few more. Perhaps — oh — 1,800 or so?

The street closings, parking

that test neighbors' patience.

But many of the neighbors well remember the Dalai Lama's last visit. And so does Mayor Michael McGlynn.

The Dalai Lama, as the mayor recalls it, captured the hearts of Medford residents from the moment he arrived.

"People were stunned that not only the Dalai Lama was here in Medford, but he jumped out of the car to say to all the neighbors, 'How ya doin'!' McGlynn said.

His Holiness, the mayor allowed, may not have used those exact words.

But when his motorcade turned up Magoun Avenue, it came to a halt long before it reached its destination. The Dalai Lama emerged from his car and, as the air reverberated with the chanting of monks broadcast over a loudspeaker, he made his way down the street, shaking hands and greeting Tibetans, neighbors, and others who had come to catch a glimpse.

McCormick fondly remembers the Dalai Lama greeting his elderly mother-in-law.

"He kissed her hand," he said.

McGlynn himself was repeatedly sidelined by an officious member of the Secret Service, who kept advising him: "Do not approach the Dalai Lama." But the Dalai Lama, as McGlynn recalls it, kept wanting to know where the mayor had gone, forcing the security officers to retrieve McGlynn.

"As I've said to may people since that day — I was only with him for 45 minutes to an hour, but I feel he's one of my best friends in life," McGlynn said. "Everybody pretty much felt the same way."

When the center opened its doors last month to discuss the plan for the day with neighbors, organizers were prepared for the worst. They invited the mayor, a police lieutenant, a state representative, and even the Rev. Chip Hines, pastor of St. Joseph in Medford, to help them explain their plans and offer reassurance.

But nobody complained.

One neighbor offered use of her backyard. Another wanted to know whether there was anything they should or shouldn't do to make the Dalai Lama feel welcome. Several others asked how they could get tickets.

Jonathan Walker, 35, who lives nearby and works at Staples, wanted to know whether he could help clean up.

"It's your community," he said afterward, with a slight shrug. "It's what you're supposed to do."

May Marquebreuck, 82, said she was looking forward to the day: "His Holiness is a wonderful inspiration for the whole world, actually." Linda Brown, a neighbor who works for the school department's food service, said she and her husband did not hesitate when the center asked, a bit audaciously, if they could please remove their two backyard fences to make way for the giant tent. She is not a Buddhist but likes to take yoga classes at the center, and likes "the flow" of energy she gets from next door.

His Holiness first visited the Kurukulla Center in 2003.

"You just feel it," she said.
Barbara Melanson, a Buddhist
and the center's volunteer landscaper, said three burly men came
by the day before to let her know
they were planning a backyard
barbecue on the day of the Dalai
Lama's visit, and "if His Holiness
would like to join them, they'd
love it."

At 7:30 Wednesday morning, a massive truck from a scaffolding company in South Boston squeezed a set of bleachers to seat 300 people into the backyard, beeping as it went. If any of the neighbors minded, they didn't say so.

McGlynn said several Catholic priests have asked him for tickets. One, he recalled, said with a laugh: "Well, I'll probably never see the pope, so why not see the pope of the Buddhists?"

"Throughout the world, I know there are deep religious divides," the mayor said. "But you're not going to find them in Medford."





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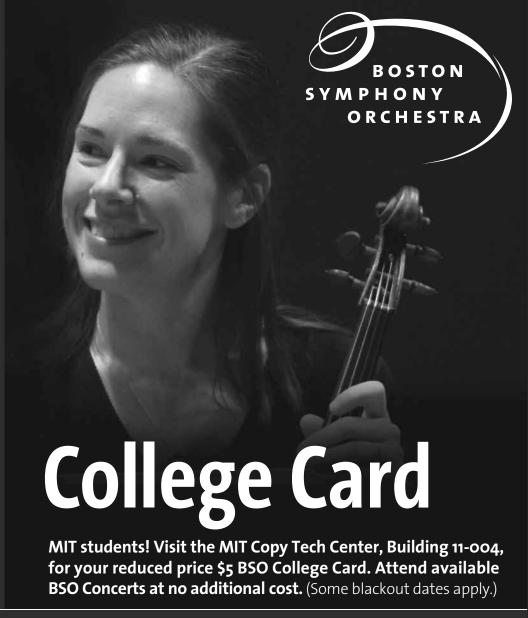
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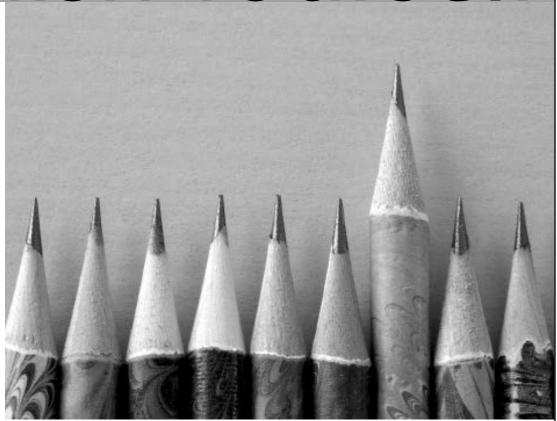
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FRIDAY, OCTOBER 12, 2012 **16** The Tech

Why is Higgs Boson important? MIT profs explain

In a lecture Thursday, physics professors try to shed light on the Higgs and its discovery

Higgs Boson, from Page 1

One idea that stuck out to me during Professor Thaler's talk was the idea that the discovery of a new particle corresponds to a theoretical principle of physics. He compared the discovery of the Higgs Boson and the idea of quantum probability to the discovery of the neutrino and the principle of conservation of mass. When looking at the history of physics, new developments in theory constantly prompt new research to test them.

Thaler gave an overview of the Standard Model and how the Higgs Boson fits in. I was slightly apprehensive that I would not be able to understand anything during the theoretical discussion, but Thaler kept it simple and used metaphors.

He began by listing the four fundamental forces - gravity, electrostatic, strong (holds nucleons together), and weak — and explaining that each force is conveyed through a fundamental particle. The weak force is responsible for converting protons to neutrons and releasing neutrinos, which is part of the process involved in the sun burning. The weak force behaves differently from the other three, because it has a massive fundamental particle and

interact with the Higgs Boson at meter-long tunnel, buried underall. Incorporating the Higgs Boson particle into quantum mechanics equations also ensures the consistency of quantum probability; without it, some events would be predicted to have a probability greater

Years of studying, questioning, and suffering through vague confusion are necessary to understand the theory behind the Higgs Boson.

the particles can collide with each other. The other fundamental forces have massless particles that don't interact with each other. The difference in the weak force is due to the Higgs Boson, which is responsible for giving mass to fundamental particles. The strength of interaction of particles with the Higgs Boson determines their mass; so massless particles like the photon don't

Just as experiments follow theory in the field of physics, the next speaker was an experimental physicist. Assistant Professor Markus Klute, who was working at the CERN facility during the discovery of the Higgs Boson, described the process of finding evidence for the particle I was surprised at the scale of the experiments involved in the discovery. The collider is a 24-kiloground in Switzerland. It fires particles at 8 TeV of energy, using 1,232 superconducting magnets. Data from the experiments is collected by a sensor over 50 feet in diameter, weighing more than the Eiffel Tower. Even more impressive, 3,200 scientists work at CERN. At the time of the discovery of the Higgs Boson, three MIT faculty and seven undergraduates were working there.

The presentation was closed out by Professor Christoph M.E. Paus, who highlighted the contribution MIT students made to the discovery and encouraged students to gain research experience. He said that "research is challenging ... but people at MIT are used to that."

The night ended with a Q&A session with the four professors. My brain was too overloaded by all the theoretical thinking at this point to raise any intelligent questions. On my way back from the lecture, I realized the event had actually given me many more new questions to think about. One question was raised by the professors themselves: What's next after the Higgs Boson? Farhi admitted during the Q&A that there are many unsatisfying points about the Standard Theory which indicate many more discoveries like this remain to be found. "We know this is not the end of the theory," he said.

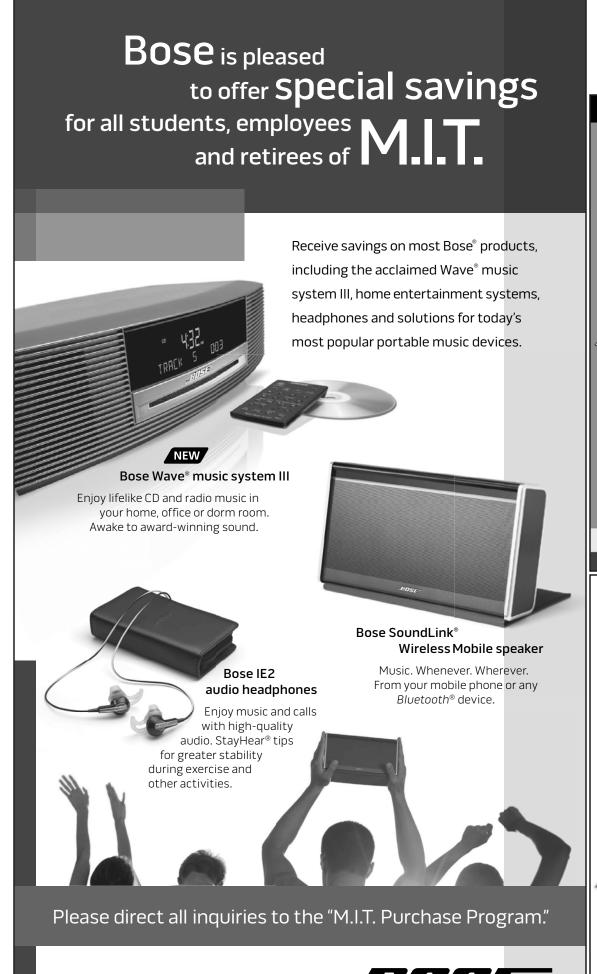
The lecture left me still unsure about the nature of the Higgs Boson. I went to the lecture expecting a simple explanation, after which I would be an expert on the Higgs Boson, but quantum mechanics is rarely straightforward. Years of studying, questioning, and suffering through vague confusion are necessary to understand the theory behind the Higgs Boson. But, even if I couldn't gain a full understanding of theoretical physics principles in the span of an hour, I definitely

I definitely left with a sense of excitement about l what I did learn.

left with a sense of excitement about what I did learn. The professors displayed so much enthusiasm about the discovery and the future developments to come. The ultimate goal of physics - to accurately and completely describe the universe - is something that I am glad to have been part of, if only for one hour on a Thursday night.

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18 THE TECH FRIDAY, OCTOBER 12, 2012



2012 Endowment

MIT's overall investments up 5%

Endowment, from Page 1

Jane Mendillo, president and CEO of the Harvard Management Company, attributed 2012's performances to "unresolved macroeconomic headwinds" in the *Harvard Gazette*.

MIT's Report of the Treasurer was released last month. Executive Vice President and Treasurer Israel Ruiz SM '01 has declined to make further remarks on MIT's 2012 performance. The MIT Investment Management Company did not respond to *The Tech's* requests for comment.

The varying performances among universities are due in part to the disappointing performance of emerging markets in 2012. The SPDR S&P Emerging Markets index fell 15 percent during FY 2012, while the S&P 500, a benchmark for investments in domestic equities, returned 5.5 percent.

The Harvard Management Company invested roughly equal amounts in emerging markets, developed foreign markets, and U.S. markets in 2012, according to a September report from Mendillo. MIT-IMCo invests more than three times as much in developed and domestic markets than in emerging markets.

The 4.6 percent of MIT's endowment allocated for spending in FY 2012 made up 15.7 percent of the \$3.0 billion collected in operating revenues, assets from which funds are pulled to run MIT. The lion's share of these assets comes from research grants, which comprised just over half of FY 2012 operating revenues and totaled to more than five times MIT's income from tuition. Gains from a pool of investments distinct from the endowment investments also contribute to the cash flow into the operating budget. The FY 2012 returns from these investments were worse than those from the primary endowment investment pool. All together, MIT's investments grew 5 percent in FY 2012.

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THE TECH 19

Lions and Rams and Falcons, Oh My! Week 6

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By Austin Osborne

Kansas City Chiefs @ Tampa **Bay Buccaneers**

Sunday, Oct. 14, 1 p.m.

Kansas City comes off a tough loss to the Baltimore Ravens. Their offense couldn't get any-



thing going last week, and Jamaal Charles was shut down for the entire game. However, they did play

outstanding defense, holding the very dangerous Ravens offense to just nine points. Tampa Bay comes off a bye week, and they should be well rested for this game. Their running game will be effective and they should win comfortably.

Prediction: 24-13 Buccaneers

Indianapolis Colts @ New York

Sunday, Oct. 14, 1 p.m.

The Colts shocked the Packers last week in an emotional game after their Head Coach Chuck Pa-



gano was diagnosed with leukemia. They had an outstanding defense in the second half after

allowing three touchdowns to Aaron Rodgers in the first half. Andrew Luck set a Colts record for passing yards in a game by a rookie with 362 yards. He has a really good connection with longtime Colts great Reggie Wayne, and they are becoming a fearsome duo. The Jets nearly beat the AFC's best team, the Houston Texans, but they let it slip away as Mark Sanchez threw an interception with 1:51 remaining. The Jets still have no running game, and they become too one-dimensional on offense to win consistently. Prediction: 20-16 Colts

Cincinnati Bengals @ Cleveland Browns

Sunday, Oct. 14, 1 p.m.

The Bengals looked flat against Miami, with QB Andy Dalton throwing two intercep-



tions and not being able to move the offense effectively. Their defense played well however, holding

Reggie Bush to under 50 yards rushing. Cleveland started off well against the Giants, jumping out to a quick 14-0 lead before promptly allowing New York to score 41 points and losing in a rout. Brandon Weeden must cut down on the interceptions if

Cleveland wants a chance to win Sunday. Fun fact: the Browns have not won a division game since 2010.

Prediction: 27-10 Bengals

Detroit Lions @ Philadelphia **Eagles**

Sunday, Oct. 14, 1 p.m.

Detroit has been unimpressive this season. After limping out of the gate to a 1-3 start, they travel



to Philadelphia for a tough game against the Ea-Matthew Stafford still leads the second best

passing attack in the NFL, but Detroit hasn't been able to convert those huge numbers into wins. They will have difficulty doing so this week as well. The Eagles come off another close game, this time a loss, to the Pittsburgh Steelers, so they will be looking to right the ship. Once again, the story of the game was Michael Vick's inability to hold onto the ball, fumbling three times and losing two of them. When Vick plays cautiously and intelligently, the Eagles are one of the most complete teams in the NFL.

Prediction: 34-24 Eagles

Oakland Raiders @ Atlanta

Sunday, Oct. 14, 1 p.m.

Atlanta won again last week, improving their record to 5-0 for the first time in franchise history.



They took the lead with 2:46 remaining and the Robert Griffin IIIless Redskins couldn't muster

enough offensive firepower to make up the difference. For the second straight week Atlanta has looked off, but they have been able to make up for it in the end. They are able to win ugly games, which is a good indicator of a championship-caliber Coming off a bye week, Oakland does not look impressive. They are dead last in rushing yards and their defense has been porous. Expect Matt Ryan to pick apart the Oakland secondary en route to their sixth straight win.

Prediction: 38-17 Falcons

St. Louis Rams @ Miami **Dolphins**

Sunday, Oct. 14, 1 p.m.

St. Louis is definitely a good sleeper pick this year. They have quietly picked up three wins this season, adding another against a tough Arizona team last Thursday night despite a lackluster effort from Sam Bradford. Their pass

rush is suffocating as they sacked Kevin Kolb nine times throughout the game. This marks the first



week since 2006 that the Rams have had a winning record. This definitely a team on the rise.

Miami also comes off a surprising win over the Bengals. Ryan Tannehill was outstanding, and he is improving every week while their rush defense continues to dominate. Miami has not allowed a 100-yard rusher for 19 straight games now, an incredible feat considering some of the great running backs they've faced.

Prediction: 24-17 Rams

Dallas Cowboys @ Baltimore **Ravens**

Sunday, Oct. 14, 1 p.m. Dallas heads to Baltimore coming off an embarrassing loss to the Chicago Bears. Tony Romo



looked lost as he threw five interceptions, two of which were returned for touchdowns. It won't

get any easier this week as they play the Ravens, a team known for their defense. Even though Baltimore was stagnant last week against Kansas City, they managed to pull out a win with a superb defensive effort. Ray Rice was also effective on the ground, racking up over 100 yards.

Prediction: 20-14 Ravens

rushing.

Since their first

half lead last

Bills @ Buffalo Arizona **Cardinals**

Sunday, Oct. 14, 4:05 p.m. Buffalo's defense was nonexistent against San Francisco, allowing 45 points and over 300

vards



week against the Patriots, the Bills have been outscored 90-10 — not the sign of a playoff team. In consecutive weeks, the Bills have allowed almost 1200 yards of total offense, which is practically unheard of in the NFL. Arizona is no longer on a winning streak after losing last week to the Rams. Their offensive line play must improve if they want to keep Kevin Kolb healthy, but their defense continues to be

Prediction: 27-14 Cardinals

New England Patriots @ Seattle Seahawks

Sunday, Oct. 14, 4:05 p.m. New England started off their game last week against Denver looking terrific on offense. They jumped out to a quick 31-7 lead, but their defense slowly allowed



Peyton and the Broncos to creep back into the Luckily game. Denver ran out of time, but their

defensive effort has to be concerning for Patriots fans. The Seahawks continue to be a completely unpredictable team. This week, they were the good Seahawks. They held Carolina to 190 total yards and snatched a close 16-12 victory. Russell Wilson looked good, going 19/25 and throwing for over 220 yards. If Seattle continues their trend, this week will be the bad Seahawks, and the Patriots should win comfortably.

Prediction: 31-21 Patriots

New York Giants @ San Francisco 49ers

Sunday, Oct. 14, 4:25 p.m.

The 49ers were nearly perfect last week. They are the first team in NFL history to rush and pass



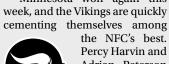
for over yards, and they also set a new team record for yardage amassed with 621 total

vards. They held Buffalo to three points and controlled the game from the outset. Ever since their loss to the Vikings, San Francisco has looked outstanding. The Giants started slow last week, but quickly returned to form as they went on to blow out the Browns. This will be a great game, and it is definitely the must-watch of the

Prediction: 17-13 49ers

Minnesota Vikings @ Washington Redskins

Sunday, Oct. 14, 4:25 p.m. Minnesota won again this





the NFC's best. Percy Harvin and Adrian Peterson have been huge for the Vikings this season as

they cruised to an early 4-1 record. Christian Ponder has also done a good job managing the game, and he hasn't made too many costly turnovers this season. Washington had a scare last week as Robert Griffin III was knocked out of the game late in the fourth quarter with a concussion. It remains to be seen whether or not he will play against Minnesota this week. Rookie Alfred Morris has been

incredibly impressive this season, and he was again this week, rushing for over 100 yards. The Redskins will need to rely on him to have a chance, especially if Griffin is out.

Prediction: 24-13 Vikings

Green Bay Packers @ Houston

Sunday, Oct. 14, 8:20 p.m. The Packers have not looked like themselves this season, losing to teams they would have



dominated last season. Aaron Rodgers has been critical of his play this season, although it

may not be only his fault. He is still having a good season taking care of the ball, but his defense is letting him down. The loss of Cedric Benson and B. J. Raji will hurt an already shaky Packers team, and things won't get easier against the Texans. Houston didn't look as outstanding as they usually do, but they still got the job done against the Jets. They have lost Brian Cushing for the season, which hurts their linebacker core. If any team can figure it out though, it's Houston. Expect a barnburner in this

Prediction: 38-28 Texans

Denver Broncos @ San Diego Chargers

Sunday, Oct. 14, 8:35 p.m.

Peyton Manning had another outstanding game last week, this time carving up the Patriots' de-



fense for almost 350 yards. He needs a consistent running behind game him however, if

the Broncos want to be successful. They almost completed a great comeback, falling just short as the Patriots managed to hold on. San Diego allowed New Orleans to get their first win of the season, but it's nothing to be embarrassed about. Drew Brees looked like the Brees of old. throwing for 370 yards and four touchdowns in his NFL recordsetting game. He has thrown a touchdown in his 48th consecutive game, and he led the Saints to a desperately needed win. Philip Rivers threw for more than 200 yards in the first half and completed all of his passes of 15 yards or more. In the second half, however, the Chargers' offensive line began to show its weakness, and Rivers was sacked a total of five times.

Prediction: 27-21 Broncos

UPCOMING HOME EVENTS

Friday, Oct. 12

Men's Tennis vs. SUNY Oneonta 4 p.m., DuPont Tennis Courts Women's Volleyball vs. Bridgewater College 7 p.m., Rockwell Cage

Saturday, Oct. 13

Rifle vs. John Jay 9 a.m., DuPont Athletic Center Sailing vs. Firefly and FJ Invite 9:30 a.m., Charles River

Swimming and Diving — Alumni Meet 1 p.m., Zesiger Center

Women's Volleyball vs. Western New England University

Women's Soccer vs. Springfield College 1 p.m., Roberts Field

Women's Volleyball vs. Rivier College 2 p.m., Rockwell Cage

Men's Soccer vs. Springfield College 4 p.m., Roberts Field

Sunday, Oct. 14

Rifle vs. Rose Hulman Sailing — Firefly and FJ Invite

Men's Tennis vs. Nichols College

9 a.m., DuPont Athletic Center

1 p.m., DuPont Tennis Courts

9:30 a.m., Charles River

11 a.m., Rockwell Cage

Tennis beats Clark

Women win 7-2 vs. Babson, Clark By Felicia Hsu

MIT Women's Tennis started off against Clark by sweeping the doubles matches, ultimately defeating Clark 7-2. Julia C. Hsu '14 picked up wins in doubles and singles, including the match-clinching singles victory. After the No. 3 team of Vynnie J. Kong '15 and Meghana Vasireddy '16 dominated the first doubles set with an 8-0 win, the Engineers went on to take the rest of the doubles matches. Ava P. Soleimany '16 took the first singles match of the night with an impressive 6-0, 6-0 in the No. 5 match, followed by Hsu with a score of 6-4, 6-2 at No. 2. Alana H. Peters '16 made it 6-0 in MIT's favor with a 6-1, 6-2 victory in the No. 6

SPORTS STAFF

Keeping up with their perfect NEWMAC record (5-0), the En-

gineers rolled past Babson with an overall score of 7-2. Sunnie E. Lampl '16 won in both doubles and singles, clinching the win for MIT. Lauren C. Quisenberry '14 and Hsu took the first point of the afternoon with an 8-4 win at No. 1. Though Kong and Vasireddy fell to the No. 3 at 8-6, the Engineer's No. 2 team of Lampl and Michelle M. Dutt '15 scraped by with a 9-8 (7-5) win. Heading into singles with a 2-1 lead, MIT picked up the next three wins to claim victory over Babson. Quisenberry claimed a win at No. 1 with a 6-2, 6-2 score just before Kong scored a victory with a 6-3, 6-2 win at No. 2. Lampl delivered the next win at No. 6 taking a 6-4, 6-0 decision. The MIT Women's Tennis team will take a break from NEW-MAC play until Oct. 16 when it will travel to Wellesley. This weekend it plays at Amherst College.



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